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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/740,131 | 12/18/2000 | Steven J. Harrington | XER 2 0351 D/99819 | 4175 |

7590 02/07/2005

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EXAMINER

BURLESON, MICHAEL L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2626

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/740,131 | Applicant(s) HARRINGTON, STEVEN J. | |
| | Examiner Michael Burleson | Art Unit 2626 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-28 is/are allowed.
- 6) ☒ Claim(s) 1-3, 15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4-14, 16 and 19-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrington et al. US 5237517.

Regarding claim 1, Harrington et al. teaches of a double hexagonal cone (10) that is made up of r,g,b and c,m,y,k and white (figure 1), which reads on a method of color specification to colorant amounts when a projected region of color space is to be produced by a selection of colorants from a set of including a first colorant, a second colorant and a third colorant. He also teaches that red has a hue 0 and yellow has a hue of 1 (column 6, lines 41-44), which reads on the second colorant being of similar hue with respect to the first colorant. Harrington et al. teaches a two-dimensional triangle (14) which is a slice from the full color double hexagonal cone of figure 1 (column 1, lines 27-31, column 3, lines 64-67 and figure 3). He also teaches of a triangle (22), which defines printable colors (column 4, lines 8-16 and figure 3). This reads on designating a

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first portion of the region to be produced by a first subset of colorants consisting of two of the first, second and third colorants and designating a second portion of the region to be produced by a second subset of colorants. Harrington et al. teaches that mappings can be generalized to enable mapping from full color images to arbitrary highlight color images (column 4, lines 12-20 and column 6, lines 18-21), which reads on mapping the color specification into colorant amounts based on the designated portions.

Regarding claim 2, Harrington et al. teaches of a triangle (14) (figure 3), which reads on designating the first portion of the region to be produced by the first colorant and a neutral colorant. He teaches of a triangle (22) (figure 3), which reads on designating the second portion of the region to be produced by the first colorant and the second colorant.

Regarding claim 3, Harrington et al. teaches of a triangle (14) (figure 3), which reads on designating the first portion of the region to be produced by the second colorant and a neutral colorant. He teaches of a triangle (22) that is produced by white, highlight color and black (figure 3), which reads on designating the second portion of the region to be produced by the first colorant and the second colorant and the neutral colorant.

3. Claims 15,17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Perumal Jr. et al. US 5473446.

Regarding claim 15, Perumal, Jr. et al. teaches of a color space system that includes CMYK (column 6, lines 66-67 and column 7, lines 1-3), which reads

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on a method of mapping a classic color description to a redundant colorant color description comprising obtaining an input color specification defined in a classic color coordinate system. Perumal Jr. et al. teaches that color is divided into two major components chromatic and achromatic (column 7, lines 7-9). He teaches that the chromatic components of color are subdivided into two colorants (column 7, lines 9-19). He teaches of hue that ranges from colorants C1 and C2 (column 7, lines 19-23 and column 8, lines 31-34). This reads on for each non-neutral colorant value in the classic color description, determining a first amount of a primary colorant and determining a first amount of a secondary colorant, said secondary colorant having substantially the same hue as the primary colorant and arranging the first primary secondary colorant amounts determined for each colorant value in the classic color description as a first redundant colorant color description containing non-neutral colorant values.

Regarding claim 17, Perumal Jr. et al. teaches that amounts of C1 and C2 sum up to one, thereby favoring one colorant while conserving the other (column 7, lines 19-23), which reads on determining the first amounts of primary and secondary colorants is carried out such that one of the first and second colorants is favored thereby conserving the other.

Regarding claim 18, Perumal Jr. et al. teaches of dividing color into two major components: chromatic and achromatic, which is then divided into two subcomponents that consist of two colorants (column 7, lines 8-13). This reads on dividing into first and second regions an output color gamut achievable by employing the first and second colorants.

Allowable Subject Matter

4. Claims 4-14,16 and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 22-28 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 22, Prior art references fail to teach of a first colorant splitter operative to receive color specification and map the color specification to similar hue output colorant values.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

1. Any inquiry concerning this communication should be directed to Michael Burleson whose telephone number is (703) 305-8683 and fax number is (703)

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746-3006. The examiner can normally be reached Monday thru Friday from 8:00 a.m. – 4:30p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at (703) 305-4863

Michael Burleson
Patent Examiner
Art Unit 2626

MB

MIb
February 3, 2005

KA Williams

**KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER**